



United States General Accounting Office
Washington, DC 20548

June 26, 2002

The Honorable Carl Levin
Chairman
The Honorable John Warner
Ranking Minority Member
Committee on Armed Services
United States Senate

The Honorable Bob Stump
Chairman
The Honorable Ike Skelton
Ranking Minority Member
Committee on Armed Services
House of Representatives

Subject: Defense Space Activities: Status of Reorganization

The United States depends on space technology for a variety of national security activities as well as commercial operations. Space technology is integral to such diverse activities as transportation, health, the environment, communications, commerce, agriculture, and energy. However, the commercial, scientific, and military importance of U.S. space assets creates vulnerabilities that potential adversaries could exploit. Addressing these vulnerabilities presents challenges for the national security space community. As you know, the Congress has had long-standing concerns about the Department of Defense's organization and management of national security space activities, including the lack of a focal point for space policy, inadequate department-level oversight, inadequate coordination between military and intelligence organizations, lack of defined responsibilities for space programs, and insufficient responsiveness to space systems users. The Congress chartered the Commission to Assess United States National Security Space Management and Organization to assess the organization and management of space activities that support U.S. national security interests and make recommendations for improvements. The present Secretary of Defense, prior to his assuming his current position, led the commission, known as the Space Commission.

In January 2001, the Space Commission reported that the Department of Defense's organization and management needed to be changed to bring a more focused and

Report Documentation Page

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|---|--|---|
| Report Date 00JUN2002 | Report Type N/A | Dates Covered (from... to) - |
| Title and Subtitle Defense Space Activities: Status of Reorganization | | Contract Number |
| | | Grant Number |
| | | Program Element Number |
| Author(s) | | Project Number |
| | | Task Number |
| | | Work Unit Number |
| Performing Organization Name(s) and Address(es) U.S. General Accounting Office 441 G Street NW, Room LM Washington, DC 20548 | | Performing Organization Report Number GAO-02-772r |
| Sponsoring/Monitoring Agency Name(s) and Address(es) | | Sponsor/Monitor's Acronym(s) |
| | | Sponsor/Monitor's Report Number(s) |
| Distribution/Availability Statement Approved for public release, distribution unlimited | | |
| Supplementary Notes | | |
| Abstract see report | | |
| Subject Terms | | |
| Report Classification unclassified | Classification of this page unclassified | |
| Classification of Abstract unclassified | Limitation of Abstract SAR | |
| Number of Pages 20 | | |

well-directed approach to national security space operations. The commission concluded that the department lacked the senior-level focus and accountability to provide guidance and oversight for space activities. Further, the commission noted that within the department and the intelligence community, a number of organizations (including the Office of Assistant Secretary of Defense for Command, Control, Communications and Intelligence; the U.S. Space Command; the military services; the National Reconnaissance Office; and the Director of Central Intelligence) were involved in space programs but without an adequate interagency coordination process. The Air Force is the Department of Defense's primary procurer and operator of space systems, while the Army controls a defense satellite communications system and operates ground mobile terminals. The Navy operates some space systems that contribute to surveillance and warning.

The commission made numerous recommendations, some of which called for presidential action. For example, the commission recommended that the President should consider establishing space as a national security priority. Most of the commission's recommendations, however, were applicable to the Department of Defense. For example, the commission made 13 recommendations to address organization and management problems, merge and realign space activities, enhance interagency communication, better integrate the experience of those involved in acquiring and operating space systems, encourage more innovative research and development, and improve visibility over funding for space-related activities. It also recommended that the Air Force be assigned statutory responsibility to organize, train, and equip for space operations because no service had been formally assigned this responsibility and the Air Force controls about 85 percent of space-related funding within the Department of Defense.

In the National Defense Authorization Act for Fiscal Year 2002, the Congress mandated that we assess the actions taken by the Secretary of Defense in implementing the Space Commission's recommendations and report in 2002 and 2003. In April 2002, we briefed your office on the status of the Department of Defense's efforts to implement the Space Commission recommendations that apply to it. This report presents and updates information we provided at our briefings (see encl. 1). As agreed, we expect to provide a second report further detailing the status of the Department of Defense's implementation efforts in early 2003.

Results in Brief

The Department of Defense has decided to take actions related to 10 of the commission's 13 recommendations to it to improve the organization and management of national security space activities. These include several recommendations for organizational changes aimed at consolidating some activities, changing chains of command, opening lines of communications, and modifying policies to achieve greater responsibility and accountability. Many changes have been implemented only

within the last few months, and thus related processes and procedures (such as setting organizational goals and defining specific roles and responsibilities) have not been completed. As a result, it is too early to determine whether these changes will enable the department to promote and protect U.S. interests in space more effectively. Moreover, the department has not yet completed plans for achieving some long-range goals, such as developing a cadre of space professionals and integrating military and intelligence space activities. The Secretary of Defense chose not to implement three of the commission's recommendations and is instead (1) opting to establish a focal point for space within the Air Force rather than an under secretary of defense, (2) choosing to increase the Air Force's responsibilities for space activities by department directive rather than requesting legislative change, and (3) deciding to direct existing organizations to conduct innovative space research and development rather than create a new organization to do so.

The Department of Defense commented on a draft of this report, and its comments have been incorporated where appropriate.

Some Recommended Actions Are Completed, Others Are in Process, and Results Are Not Yet Clear

The Secretary of Defense agreed with the Space Commission's findings that the Department of Defense (DOD) needed a new and comprehensive national security space management approach to promote and protect U.S. interests in space. In a May 8, 2001, letter to the leaders of the defense and intelligence oversight committees, the Secretary informed the Congress that he would take actions to improve DOD's management structure and organization for national security space actions. In a directive dated October 18, 2001, he instructed his staff to implement 10 of the commission's 13 recommendations directed to DOD.

As table 1 shows, DOD has implemented or is in the process of implementing these 10 recommendations to it. These recommendations largely represent organizational changes that the commission deemed necessary to improve DOD's focus on national security space activities and better coordinate military and intelligence space activities. To provide a focal point for the disparate space activities conducted throughout the department, the commission recommended creating an under secretary of defense for space, intelligence, and information to serve as the advocate for space within the department, oversee research, coordinate military intelligence activities, and work with the intelligence community on long-range requirements planning. The commission also concluded that the Air Force was best suited to organize, train, and equip space forces, and it recommended that DOD provide the Air Force more leadership responsibility and authority for space operations. In addition, the commission recommended actions to provide resources and direction for innovative space-related research, development, and demonstration programs and more clearly identify the levels and sources of funding and personnel involved in space activities.

Table 1: Status of Space Commission Recommendations

| Space Commission recommendation | No action intended | In progress | Completed |
|--|-------------------------------------|-------------------------------------|-------------------------------------|
| The Secretary of Defense and the Director of Central Intelligence should meet regularly to address national security space policy, objectives, and issues. | | | <input checked="" type="checkbox"/> |
| Secretary of Defense should establish an under secretary of defense for space, intelligence, and information. ^a | <input checked="" type="checkbox"/> | | |
| Secretary of Air Force should assign responsibility for the command of Air Force Space Command to a four-star officer other than the commander, U.S. Space Command and North American Aerospace Defense Command. | | | <input checked="" type="checkbox"/> |
| Secretary of Defense should end the practice of assigning only Air Force flight-rated officers to position of commander, U.S. Space Command and North American Aerospace Defense Command. | | <input checked="" type="checkbox"/> | |
| Air Force should realign headquarters and field commands to more effectively organize, train, and equip for prompt and sustained space operations. | | <input checked="" type="checkbox"/> | |
| Air Force Space Command should be assigned responsibility for providing resources to execute space research, development, acquisition, and operations. | | | <input checked="" type="checkbox"/> |
| Amend Title 10 U.S.C. to assign the Air Force responsibility to organize, train, and equip for air and space operations. ^b | <input checked="" type="checkbox"/> | | |
| Secretary of Defense should designate the Air Force as DOD's executive agent ^c for space. | | <input checked="" type="checkbox"/> | |
| Assign the Under Secretary of the Air Force as the Director of the National Reconnaissance Office. | | | <input checked="" type="checkbox"/> |
| Designate the Under Secretary of the Air Force as the Air Force acquisition executive ^d for space. | | | <input checked="" type="checkbox"/> |
| Secretary of Defense and Director of Central Intelligence should create a research, development, and demonstration organization to focus on innovative space research and development. ^e | <input checked="" type="checkbox"/> | | |
| Secretary of Defense should direct the Defense Advanced Research Projects Agency and service laboratories to undertake development and demonstration of innovative space technologies. | | <input checked="" type="checkbox"/> | |
| Secretary of Defense should establish a Major Force Program ^f for Space. | | | <input checked="" type="checkbox"/> |

^a Secretary of Defense opted to establish a focal point for space in the Under Secretary of the Air Force.

^b DOD opted to increase Air Force responsibility for organizing, training, and equipping for space operations without requesting legislative change.

^c The executive agent is a term used to indicate a delegation of authority by the Secretary of Defense to a subordinate to act on the Secretary's behalf. The exact nature and scope of the authority delegated may vary. It may be limited to providing administration and support or coordinating certain functions or extend to direction and control over specified resources for specified purposes.

^d The acquisition executive is the individual charged with overall acquisition management responsibilities within his or her organization.

^e This organization was not established.

^f A major force program is an aggregation of related budget items that can be used to track resources that support a macro-level combat or support mission, such as strategic forces or general purpose forces. Eleven major force programs comprise DOD's budget. DOD identified and aggregated space-related budget items within the existing major force programs to create a "virtual" major force program for space.

Source: GAO analysis.

It is too early to determine the full impact of these changes in promoting and improving DOD's management of space activities. DOD has only recently begun to implement many of the commission's recommendations, with several substantive actions taking place since December 2001. For example, DOD assigned the command of the Air Force Space Command to a four-star general other than the commander of the U.S. Space Command/North American Aerospace Defense Command, and a new commander took command only last April. Other actions have yet to be completed. For example, roles and responsibilities and staffing for the new national security space team within the Air Force have not been agreed upon and documented. Likewise, DOD is in the process of realigning the National Security Space Architect to report directly to the Under Secretary of the Air Force/Director, National Reconnaissance Office, but the guidance defining the architect's roles and responsibilities under the realignment has not been finalized. In addition, some of the desired results (such as creating and sustaining a cadre of space professionals and integrating DOD and intelligence space activities) will require ongoing management attention.

DOD will not implement 3 of the Space Commission's 13 recommendations to it. First, it did not accept the commission's recommendation to assign responsibility for space activities to an under secretary of defense to provide policy, guidance, and oversight for space and ensure that space-related issues are addressed at the departmental level. Instead of creating this position, the Secretary of Defense established a focal point for space within the Air Force by (1) assigning the Under Secretary of the Air Force as both the Director of the National Reconnaissance Office and the Air Force acquisition executive for space and (2) delegating the Under

Secretary as the milestone decision authority¹ for DOD space major defense acquisition programs. However, some DOD and service officials we spoke with expressed concerns about how well the Air Force will balance its interests with the needs and requirements of the other services in developing and managing space assets. Air Force officials are in the process of developing mechanisms to involve and coordinate with the other services and believe the Air Force should be given an opportunity to provide effective leadership.

Second, DOD did not seek legislative changes to amend Title 10 U.S.C. to assign the Air Force responsibility to organize, train, and equip forces for space operations in addition to its stated responsibilities for air operations. Rather, the department determined it could address the intent of the recommendation by assigning the Air Force that responsibility without legislative change. Finally, no new research, development, and demonstration organization has been created to focus on innovative space research and development. The Secretary did direct the Defense Advanced Research Projects Agency and service laboratories to undertake development and demonstration of innovative space technologies.

Scope and Methodology

To assess the status of DOD's implementation of the Space Commission recommendations, we discussed the implementation actions with officials in the Office of the Secretary of Defense; the Departments of the Army, the Navy, and the Air Force; the Marine Corps Headquarters; the Air Force's Space Command and Space and Missile Systems Center; the Army Space Command; the Naval Space Command; the National Security Space Architect; and the U.S. Space Command/North American Aerospace Defense Command. We also discussed space management issues with experts outside the government. We reviewed and analyzed documentation related to DOD's efforts to implement the Space Commission's recommendations.

Agency Comments and Our Evaluation

DOD provided oral comments on a draft of this report, and its comments are included where appropriate. DOD generally agreed with the report, but it disagreed with our assessment that the Commission's recommendation that the Air Force reorganize its headquarters and field commands to more effectively organize, train, and equip for prompt and sustained space operations is in progress. DOD asserted that actions taken to date represent completion of the recommended realignment of headquarters and field commands. While we recognize that the Air Force has made major organizational changes that address the intent of the recommendation, we believe that details of the organizational realignment must also be finalized before the recommendation can be considered fully implemented. For example, although the

¹ The milestone decision authority is the individual designated to approve entry of an acquisition program into the next phase of the acquisition process.

Air Force has moved its Space and Missile Systems Center from its Materiel Command to its Space Command, the memoranda of agreement that support the organizational change have not been completed. In addition, the Air Force is in the process of updating its policy directives to reflect the greater role of the Under Secretary of the Air Force and the commander of the Air Force Space Command in prioritizing space science and technology projects.

We conducted our review between November 2001 and May 2002 in accordance with generally accepted government auditing standards.

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We are sending copies of this report to the Under Secretary of Defense/Acquisition, Technology and Logistics; the Secretaries of the Army, the Navy, and the Air Force; the Commandant of the Marine Corps; the Under Secretary of the Air Force; and the Director, Office of Management and Budget. In addition, the report is available at no charge on GAO's home page at <http://www.gao.gov>.

If you have any questions on this letter, please call me on (202) 512-3958. Principal contributors to this letter were Janet St. Laurent, Margaret Morgan, MaeWanda Jackson, Robert Poetta, James Angell, and James Reynolds.



Carol R. Schuster
Director, Defense Capabilities and Management

Enclosure



Implementation Status by
Recommendation

The Secretary of Defense and the Director of Central Intelligence should meet regularly to address national security space policy, objectives and issues.

Status: Action Completed

In a May 8, 2001, letter to congressional defense and intelligence oversight committee leadership, the Secretary of Defense reported that he and the Director of Central Intelligence meet regularly on intelligence matters.

Actions taken

- The Secretary of Defense and the Director of Central Intelligence requested the National Reconnaissance Office to examine how to establish an Office of Space Reconnaissance.



Implementation Status by
Recommendation

Secretary of Defense should establish an Under Secretary of Defense for Space, Intelligence, and Information.

Status: Action not intended

Alternative actions taken

- Secretary of Defense established the Under Secretary of the Air Force as the focal point for space activities with the responsibility for space planning and architecture, integration, and acquisition.
- Assigned Under Secretary of Air Force as Director of National Reconnaissance Office.

Actions/issues remaining

- Whether the Under Secretary of the Air Force is the proper organization within the Department of Defense to provide department-level oversight, resolve inter-service issues, and be the advocate for space.
- How space fits into broader organizational changes, such as creation of Northern Command.
- Realignment of National Security Space Architect to Under Secretary of the Air Force/Director of National Reconnaissance Office and definition of roles, responsibilities, and joint staffing plan.



Implementation Status by
Recommendation

Secretary of the Air Force should assign responsibility for the command of Air Force Space Command to a four-star officer other than CINCSpace/CINCNORAD.

Status: Action completed

Actions taken

- DOD created four-star billet for commander of the Air Force Space Command.
- Air Force separated command of Air Force Space Command from command of U.S. Space Command and North American Aerospace Defense Command.
- General Lance Lord assumed command of Air Force Space Command on April 19, 2002.

Action/issue remaining

- Manpower and cost implications of staffing independent headquarters for Air Force Space Command that had shared staff resources with U.S. Space Command/North American Aerospace Defense Command.



Implementation Status by
Recommendation

Secretary of Defense should end practice of assigning only Air Force flight-rated officers to position of CINCSpace/CINCNORAD.

Status: Action in progress

Action taken

- Secretary of Defense responded to the Congress that the practice of assigning only flight-rated officers to the positions will be discontinued, but no action item for this recommendation was included in the Secretary's directive on space reorganization.

Actions/issues remaining

- Currently, the position of commander, U.S. Space Command/North American Aerospace Defense Command, is occupied by a flight-rated officer.
- Subsequent assignments will show whether the practice is discontinued.



Air Force should realign headquarters and field commands to more effectively organize, train, and equip for prompt and sustained space operations.

Status: Action in progress

Framework of new organization in place; however, details of implementing new organization are not finalized.

Actions taken

- Under Secretary of the Air Force assigned as Director of the National Reconnaissance Office; some functions realigned to support the Under Secretary of the Air Force as the focal point for national security space.
- Space and Missile Systems Center realigned to Air Force Space Command; commander of Space and Missile Systems Center designated program executive officer for space.

Actions/issues remaining

- Whether integrating requirements and acquisitions functions will improve efficiency and effectiveness of space operations.
- Agreements and roles have not been finalized (support agreements between Air Force's Space Command and Material Command, update to Air Force policy directive governing space and technology policy, staffing for organizations).



Implementation Status by
Recommendation

Air Force Space Command should be assigned responsibility for providing resources to execute space research, development, acquisition, and operations.

Status: Action completed

Air Force Space Command now responsible for directing and integrating space research, development, acquisitions, and operations.

Action taken

- Space and Missile Systems Center realigned to Air Force Space Command from Air Force Materiel Command.

Actions/issues remaining

- Air Force vision for the overall space program and how activities will fit into the program has not emerged.
- Goals and measurable objectives have not been developed.
- Funding sources for new space activities and process for directing research and development funding remain to be identified.



Amend Title 10 U.S.C. to assign the Air Force responsibility to organize, train, and equip for air and space operations.

Status: Action not intended

DOD opted to increase Air Force responsibility for organizing, training, and equipping for space operations without requesting legislative change.

Alternative actions taken

- Centralized responsibility for space activities in office of Under Secretary of Air Force.
- Moved the Air Force's Space and Missiles Systems Center to Air Force Space Command.
- Air Force, Army, and Navy are examining space career field issues.

Actions/issues remaining

- Update DOD Directive 5100.1 (Functions of DOD Components).
- Air Force and other service still drafting plans for space career field; clarification of Air Force role in directing and/or providing space training to other services' personnel.
- Concerns about whether Air Force will treat all services' requirements fairly and the strength of Air Force's advocacy for space remain.



Secretary of Defense should designate the Air Force as DOD's executive agent for space.

Status: Action in process

The Under Secretary of the Air Force to be designated as executive agent for space, but roles and responsibilities of executive agent and other organizations not yet agreed upon.

Action taken

- The Secretary of Defense has not officially designated the Air Force as executive agent for DOD space, although he has announced his intention to do so.
- In anticipation of this delegation, the Air Force has designated the Under Secretary of the Air Force as executive agent for space.

Actions/issues remaining

- Formal designation of the Air Force as executive agent for DOD space.
- Directive to set out roles and responsibilities of Air Force as executive agent for DOD space under discussion.
- Comptroller memo detailing responsibilities for national security space plan and program assessments being drafted.



Implementation Status by
Recommendation

Assign Under Secretary of the Air Force as the Director of the National Reconnaissance Office

Status: Action completed

Action taken

- Secretary of Defense assigned the Under Secretary of the Air Force as the Director of the National Reconnaissance Office on December 13, 2001.

Actions/issues remaining

- How to align Air Force and National Reconnaissance Office programs using each other's best practices.
- How the Under Secretary of the Air Force will integrate classified and unclassified programs in his new role as the Director of National Reconnaissance Office.



Implementation Status by
Recommendation

Designate the Under Secretary of the Air Force as the Air Force acquisition executive for space.

Status: Action completed

Action taken

- Designation effective February 7, 2002.



Implementation Status by
Recommendation

Secretary of Defense and Director of Central Intelligence should create a research, development, and demonstration organization to focus on innovative space research and development.

Status: Action not intended



Implementation Status by
Recommendation

Secretary of Defense should direct Defense Advanced Research Projects Agency and service laboratories to undertake development and demonstration of innovative space technologies.

Status: Action in process

Action taken

- Under Secretary of Defense (Acquisition, Technology, and Logistics) directed Defense Advanced Research Projects Agency and military laboratories to develop and demonstrate innovative space technologies.

Actions/issues remaining

- Questions remain about how efforts will be coordinated.



Implementation Status by
Recommendation

Secretary of Defense should establish a major force program for space.

Status: Action completed

The Under Secretary of Defense (Comptroller/Chief Financial Officer) established a cross-cutting major force program (called a “virtual major force program”) by identifying space-related program elements in existing major force programs.

Actions taken

- Space program elements in existing major programs identified.
- DOD’s fiscal year 2003-2007 Future Years Defense Program identified \$143 billion in planned space programs.

Actions/issues remaining

- Incorporating space into budget planning and programming.
- Program elements may be added or deleted from the major force program to reflect changes in the space program.

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